**Fixed, Variable and Mixed Costs**

Costs can be classified in another manner. This classification uses changes in behaviour during periods of activity. During planning, a manager should be able to determine if the cost is fixed or variable and should be able to predict the percentage of rise or fall of the total variable cost. This information is important to the planning, controlling and decision-making process of the firm.

**Variable costs:** are called variable because the total cost varies in direct proportion to the activity level. Some examples of activity level may include the number of units produced, the number of units sold, and the hours worked. Other examples include the number of miles driven, the number of papers delivered, the number of letters prepared in a day, the number of beds occupied in a hospital or the number of pizzas made in a evening. In the end, it is all based upon the amount of work that is completed, the expense amount will always change based on the amount of activity that occurs, they are never constant.

How many variable costs will a company have? A manufacturing firm will have many variable costs. A service organization such as a school or hospital will have few variable costs due to its function. A service firm such as a dry cleaning establishment will have variable costs dependent on its level of activity.

**Fixed costs:** Total fixed costs do not change regardless of the activity level within a certain range (relevant range). They relate more to a passage of time such as a year than to the number of units produced. Since costs are fixed, the cost per unit will decrease with increased activity. For example, if the insurance on a delivery vehicle is $600 per year, the fixed cost per delivery would be as follows:

100 deliveries/year: $600/100 = $6.00/delivery 500 deliveries/year: $600/500 = $1.20/delivery 1,200 deliveries/year: $600/1,200 = $0.50/delivery

Other examples of fixed costs include rent, depreciation, insurance, and management salaries.

Managers usually refer to total fixed cost in planning rather than the fixed cost per unit. A manager may adjust fixed costs by reducing staff, reducing advertising campaigns, closing down a portion of the operation, etc. An example of the differences between management styles and decision making may be seen in times of recession when one manager may decide to lay off employees while another may keep employees on a full or partial payroll even if there is little work to be completed.

Today, there is a trend toward more fixed costs than variable costs because of increased automation and stabilized labour contracts.

**Mixed costs:** contain both fixed and variable elements. For example when leasing a car, a monthly fee (fixed) may have to be paid up to a certain monthly distance. Once one exceeds that distance, a variable cost of 10¢ a kilometre may have to be paid. Other examples of mixed costs may include: electricity, heat, telephone, repairs, and maintenance.

When examining mixed costs, there are two main methods used to analyze the costs into the variable and fixed cost elements. This is useful information that helps management handle these costs.

Formula 1: 

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| Formula 2 :    Formula 2 Expanded: |

Identify the Cost

Identify each expense as either ‘F” for Fixed, ‘V’ for variable or ‘M’ for Mixed.

1. \_\_\_\_\_\_direct labour - ex $6.25/hour
2. \_\_\_\_\_\_car rental or lease (base cost plus travel distance)
3. \_\_\_\_\_\_\_utilities - heat, electricity, water, sewage
4. \_\_\_\_\_\_\_repairs
5. \_\_\_\_\_\_\_insurance
6. \_\_\_\_\_\_\_rent
7. \_\_\_\_\_\_\_salaries
8. \_\_\_\_\_\_\_salaries for sales persons (base salary plus commission)
9. \_\_\_\_\_\_\_depreciation
10. \_\_\_\_\_\_\_direct material cost - ex $3.50 for a roll of film
11. \_\_\_\_\_\_\_supplies
12. \_\_\_\_\_\_\_commissions
13. \_\_\_\_\_\_\_telephone

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| 1. Those costs which change in direct proportion to the change in the number of units are called   1. fixed costs 2. mixed cost 3. variable cost   2. The $2.00 paid by a commercial photographer for each roll of camera film is a   1. fixed costs 2. mixed cost 3. variable cost   3. A combination (or acts as if it contains a combination) of fixed and variable costs is called a   1. fixed costs 2. mixed cost 3. variable cost   4. The $12.00 paid by a cleaning company for a bottle of cleaner is a   1. fixed costs 2. mixed cost 3. variable cost   5. The car rental charge is $12.00 per day and $0.10 per kilometer over 100 km. This is an example of   1. fixed costs 2. mixed cost 3. variable cost   6. Those costs that remain constant regardless of change in business activity are called   1. fixed costs 2. mixed cost 3. variable cost   7. The $500.00 per month rent paid by a commercial photographer is a   1. fixed costs 2. mixed cost 3. variable cost   8. Telephone bill - monthly rate of $21.50 and a long distance rate of $0.15 per minute. This is an example of   1. fixed costs 2. mixed cost 3. variable cost   9. If the insurance on a delivery van is $500 per year, this cost is considered a   1. fixed costs 2. mixed cost 3. variable cost |